Missouri Department of Natural Resource

Regulatory Impact Report

For

Proposed Rules 10 CSR 10 6.362, 6.364, 6.366, 6.368; and Proposed Amendments 10 CSR 10-6.350 and 6.360

Division/Program_Division of Environmental Quality/Air Pollution Control Program

Rule number __10 CSR 10 6.362, 6.364, 6.366, 6.368, 6.350, 6.360_
Rule title _Clean Air Interstate Rule Annual NOx Trading Program, Clean Air Interstate Rule Seasonal NOx Trading Program, Clean Air Interstate Rule SO2 Trading Program, Control of Mercury Emissions From Electric Generating Units, Emission Limitations and Emissions Trading of Oxides of Nitrogen, Control of NOx Emissions From Electric Generating Units and Non-Electric Generating Boilers__

Type of rule: New Rules and Amendments

Nature of the rule: Prescribes environmental standards and affects environmental conditions

Submitted by

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Program Director Date

Approval of the Completed Regulatory Impact Report

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Legal Counsel Date

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Division Director Date

Missouri Department of Natural Resource

Regulatory Impact Report

For

Proposed Rules 10 CSR 10 6.362, 6.364, 6.366, 6.368; and Proposed Amendments 10 CSR 10-6.350 and 6.360

Applicability: Pursuant to Section 640.015 RSMo, "all rulemakings that prescribe environmental conditions or standards promulgated by the Department of Natural Resources…shall… be based on the regulatory impact report…." This requirement shall not apply to emergency rulemakings pursuant to section 536.025 or to rules of other applicable federal agencies adopted by the Department "without variance."

The Missouri Department of Natural Resources has determined this rulemaking prescribes environmental conditions or standards and verifies that this rulemaking is not a simple unvarying adoption of rules from other federal agencies. Accordingly, the Department has produced this regulatory impact report, which will be made publicly available for comment for a period of at least 60 days. Upon completion of the comment period, official responses will be developed and made available on the agency web page prior to filing the proposed rulemaking with the Secretary of State. Contact information is at the end of this regulatory impact report.

1. Describe the environmental conditions or standards being prescribed.

   These rule makings are necessary to implement the requirements of the U.S. Environmental Protection Agency's (EPA's) Clean Air Interstate Rule and Clean Air Mercury Rule, see attached. This group of rules contains four new rules, which establish emissions banking and trading programs for nitrogen oxides, sulfur dioxide, and mercury consistent with EPA's rule requirements. The two rule amendments to 6.350 and 6.360 are to establish sunset clauses for these two rules, which will ensure that affected sources will not be subject to unneccessary or duplicate regulatory requirements. Below is a brief discription of each rule:

   10 CSR 10-6.362 Clean Air Interstate Rule Annual NOx Trading Program - This rule establishes an emissions cap for nitrogen oxides and includes the affected sources in Missouri in the EPA's regional cap and trade program for nitrogen oxides. The cap and trade program will allow affected facilities in Missouri to purchase emission allowances from other affected facilities in Missouri and in other states participating in the regional trading program. The emission cap for Missouri was established by EPA as part of the Clean Air Interstate Rule process and will require facilities that have an electric generator with a nameplate capacity of greater than 25 mega-watts to demonstrate compliance with the emission cap. This cap for Missouri will require additional controls for nitrogen oxides at approximately 100 emission units.

   10 CSR 10-6.364 Clean Air Interstate Rule Seasonal NOx Trading Program - This rule establishes an ozone season emission cap for nitrogen oxides and also includes the affected sources in Missouri in the EPA's regional cap and trade program for nitrogen

oxides. This rule is the same as the annual program with the exception of the control perios.

10 CSR 10-6.366 Clean Air Interstate Rule SO2 Trading Program - This rule establishes an annual emissions cap for sulfur dioxide emission from affected sources in Missouri and includes the affected sources in EPA's regional sulfur dioxide emissions trading program. This rule differs from the NOx trading programs in the there are no allocations of sulfur dioxide present in this rule. The rule relies on the EPA's Acid Rain emission allocations for determining compliance.

10 CSR 10-6.368 Control of Mercury from Electric Generating Units - This rule establishes an emissions cap for mercury emitted from coal fired electric generating units, greater than 25 mega-watts, and includes the affected sources in EPA's mercury trading program. This cap and trade program is available nationwide to states that opt to participate. The program operates the same as the NOx trading programs with the exemption of the compliance dates being 2010 and 2018 for mercury and 2009 and 2015 for NOx.

10 CSR 10-6.350 Emission Limitations and Emissions Trading of Oxides of Nitrogen - This rule amendment will add a clause to void the requirement of this rule once the seasonal trading rule for nitrogen oxides is implemented. This rule is less stringent and therefore unnecessary at that point.

10 CSR 10-6.360 Control of NOx Emissions from Electric Generating Units and Non-Electric Generating Boilers - This rule amendment will add a clause to void the requirements of this rule once the seasonal trading rule for nitrogen oxides is implemented. In addition, the rule amendment will add language to include industrial combustion turbines and combined cycle units. This language was omitted from the original rule. The department is unaware of any affected sources at this time. However, EPA is requesting this change.

These rules are prodominately adopting EPA's model rules, which were developed for states to use to comply with the Clean Air Interstate Rule and Clean Air Mercury rule. In addition EPA gave the states the ability to distribute the nitrogen oxide and mercury emission caps, to determine if opt-in units will be allowed in their respective states, and to distribute the compliance supplement pool in the annual NOx rule.

2. A report on the peer-reviewed scientific data used to commence the rulemaking process.

The Environmental Protection Agency has finalized both the Clean Air Interstate Rule and the Clean Air Mercury Rule. Both of these regulations have been through EPA's rulemaking process and require regulatory action by Missouri. EPA's rulemakings have been through public comment periods and received significant comment and review from states and the regulated community. EPA's rules were developed by EPA's Clean Air Markets Division and were reviewed by EPA's regional offices, Office of Management and Budget, Office of Air Quality Planning and Standards, as well as EPA's General

Council. The data used included the Clean Air Markets Divisions Acid Rain database, EPA's Integrated Planning Model, and emissions data submitted to EPA from the states. All of this data was published and available for review and comment during the rulemaking process.

3. A description of the persons who will most likely be affected by the proposed rule, including persons that will bear the costs of the proposed rule and persons that will benefit from the proposed rule.

These rules apply to owners and operators of fossil fuel fired electric generating units with generating capacity greater than 25 megawatts. The ozone season nitrogen oxides trading program rules also apply to large industrial boilers in eastern Missouri. The majority of the cost related to these proposed rules will likely be passed on to customers in the way of rate increases for electricity. The public will receive the benefit of a significant reduction in emissions from these sources, which is anticipated to reduce ozone and fine particulate formation.

4. A description of the environmental and economic costs and benefits of the proposed rule.

The EPA Clean Air Interstate Rule and Clean Air Mercury rule were developed to reduce the emissions of nitrogen oxides and sulfur dioxide in the eastern U.S. and mercury throughout the U.S. These rules are being implemented in two phases and once implemented will be the largest reduction of these pollutants since the implementation of the Acid Rain program in the early 1990s. In order to comply with these regulations, electric generating units will need to install control equipment for nitrogen oxides, sulfur dioxide, and mercury or will be required to purchase additional allocations from the market. The cost of this control and the purchase of allocations will likely be passed on to the ratepayer. However, the emission reductions will be achieved through the implemention of emissions banking and trading programs, which will provide a mechanism for reducing compliance costs. The fiscal notes for both public and private entities is in development and will be available for the filing of the proposed rulemaking with the Misouri Secretary of States Office.

5. The probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenue.

These rules are not anticipated to have significant costs for the agency or any other agency. The only costs incurred by the agency will be in the implementation of the energy efficiency and renewable energy set-aside. The set-aside is part of the annual nitrogen oxide trading program. We have proposed to set aside 300 allowances to give to qualifying projects related to energy efficiency or renewable energy generation. This will require the department to review these projects for distribution of the allowances. These provisions will require the Energy Center to review and approve projects that receive emission allocations for undergoing approved projects. The EPA will be administering the trading programs for all states that choose to be included in the regional trading

program. The state is only required to distribute the emissions cap and make other rulemaking determinations.

6. A comparison of the probable costs and benefits of the proposed rule to the probable costs and benefits of inaction, which includes both economic and environmental costs and benefits.

   EPA's rulemakings provide an analysis of the impacts that these rules will have on ozone and fine particulate formation and on mercury deposition. While these rules will have signifciant financial costs, due to control equipment installation, the environmental improvements are expected to be significant as well. For Missouri, it is likely that the St. Louis ozone nonattainment area will meet attainment through the implementation of the Clean Air Interstate Rule. The status of the PM2.5 nonattainment area is less clear, but the level of fine particulate formation will be decreased through the Clean Air Interstate Rule reductions. Mercury deposition is a significant concern for human health. The Clean Air Mercury Rule establishes a nationwide cap on mercury emissions and will require significant reductions in mercury releases from coal fired power plants, the largest uncontrolled source of anthropogenic mercury emissions in the U.S. The cost of not doing these rules would be that the St. Louis area would remain in nonattainment of the national ambient air quality standard for ozone and fine particulate until the state implemented more costly control measures necessary to reduce the formation of ozone and fine particulate. Another cost would be that mercury emissions and deposition would continue to occur at the current rate. These emissions contribute to fish consumption advisories in most states including Missouri.

7. A determination of whether there are less costly or less intrusive methods for achieving the proposed rule.

   EPA has determined that the requirements of the Clean Air Interstate Rule and the Clean Air Mercury Rule are the most cost effective means of reaching the desired emission reductions. The attached rulemaking done by EPA discusses the cost effectiveness of the regulations.

8. A description of any alternative method for achieving the purpose of the proposed rule that were seriously considered by the department and the reasons why they were rejected in favor of the proposed rule.

   EPA's Clean Air Interstate Rule and Clean Air Mercury rule require states to develop regulations that achieve an emissions cap for nitrogren oxides, sulfur dioxide, and mercury. The proposed rules are based on EPA's model rules. The state could have developed state specific rules and still demonstrated that the emissions from Missouri's electric generating units was below the cap. However, this would almost certainly have cost more for controlling the same amount of emissions and would have reduced the flexibility that Missouri's electric generating units have under the proposed rules.

9. An analysis of both short-term and long-term consequences of the proposed rule.

The short-term consequence of the rule are that the affected sources will need to install control equipment to meet the first phase caps in the proposed rules. The installation of control equipment will likely result in higher electric prices for Missouri's ratepayers. These rules will result in a reduction of regional emissions of nitrogen oxides, sulfur dioxide and mercury. The second phase of the rules will require additional emission reductions and will require even more control equipment, again ultimately resulting in additional cost for electricity for ratepayers. EPA has estimated emission reductions after the second phase of the Clean Air Interstate Rule of greater than 60% for nitrogen oxides, 57% for sulfur dioxide, and 70% for mercury.

10. An explanation of the risks to human health, public welfare or the environment addressed by the proposed rule.

As is described in the attached EPA regulations, these proposed rules will reduce the emissions of precursors of ozone and fine particulate. Both ozone and fine particulate have been found to have significant negative impact on human health by reducing lung function in sensitive groups. The Clean Air Mercury Rule will reduce emissions of mercury, which is a neurotoxin, that has been linked to health and developmental problems in children.

11. The identification of the sources of scientific information used in evaluating the risk and a summary of such information

These rules are predominantly adopting federally developed model rules. The model rules, developed by EPA, are intended to support the emission reductions that are established in the attached federal regulations.

12. A description and impact statement of any uncertainties and assumptions made in conducting the analysis on the resulting risk estimate.

EPA's analysis in their rulemaking and supporting documents address the impacts and uncertainties of the assumptions made in their Clean Air Interstate Rule and Clean Air Mercury Rule. The assumptions included labor issues, control levels, unit outage rates, weather variables, electric usage, and cost of compliance. EPA preformed analysis of all of these variables,which has been publically reviewed, comments received and responds published.

13. A description of any significant countervailing risks that may be caused by the proposed rule

None known.

14. The identification of at least one, if any, alternative regulatory approaches that will produce comparable human health, public welfare or environmental outcomes.

EPA looked at developing a maximum achievable control technology (MACT) standard for mercury emissions from coal fired electric generating units instead of the Clean Air Mercury Rule. EPA finally decided that the Clean Air Mercury rule was a better means of reducing the significant impact on human health due to mercury emissions from these sources. EPA looked at several rule approaches during the Clean Air Interstate Rule process and came to the conclusion that the Clean Air Interstate Rule as published was the most cost effective way to eliminate the impact of upwind areas on downwind nonattainment areas for ozone and fine particulate matter.

15. Provide information on how to provide comments on the Regulatory Impact Report during the 60-day period before the proposed rule is filed with the Secretary of State.

Formal comments can be provided on either the Regulatory Impact Report or the draft rule text by sending them to the contact listed below.

Questions and/or comments may be sent to:

Chief, Operations Section
Missouri Department of Natural Resources Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176

or

Missouri Air Conservation Commission
P.O. Box 176
Jefferson City, MO 65102-0176

or

call: (573) 751-4817.

16. Provide information on how to request a copy of comments or the web information where the comments will be located.

Copies of formal comments made on either the Regulatory Impact Report or the draft rule text may be obtained by request from the contact listed above or by accessing the Rules In Development section at Web site www.dnr.mo.gov/alpd/apcp/homeapcp.htm for this particular rulemaking.